

Date=09/07/2020

Lecture By=Shubham Joshi

Notes By=Upadhyay Hemanshu

Subject ⇒ Python

IN PREVIOUS LECTURE (QUICK RECAP) Date-08/07/2020	In today's Lecture (Overview)
<p>⇒What does the <code>if __name__ == "__main__":</code> do?</p> <p>⇒ What is Python Loops?</p> <p>⇒ For Loop</p> <p>⇒ While Loop</p> <p>⇒ Continue Command</p> <p>⇒ Break Command</p> <p>⇒ While true loop</p>	<p>⇒ What Is Ascii Value??</p> <p>ord chr</p> <p>⇒ End command in python</p> <p>⇒ What is Comments In Python??</p> <p>⇒ Range In Python</p> <p>⇒ What Is IDX in Python??</p> <p>⇒ What Is Prime Number??</p> <p>⇒ Questions For Self Practice..</p>

⇒ **End command in python**

-in Python 3, "end =" " **appends space** instead of newline.

- **print x, # Trailing comma suppresses newline in Python 2 print(x, end=" ") # Appends a space instead of a newline in Python 3.**

```

1 item = input("Letter: ")
2 ip = input("Input: ").lower()
3 r = ip.count(item)
4 print (r)
5 ip = ip.split()
6 for word in ip:
7     if item in word:
8         print((word), end = ' ')
9

```

▶ Run ☒ Terminal 💾 Save

```

Letter: e
Input: The quick brown fox jumps over the lazy dog.
3
the over the

```

"[Click Here](#)" To know More About It.

For video tutorial "[Click Here](#)"

⇒ **What Is Ascii Value??**

-ASCII stands for **American Standard Code for Information Interchange**

- It is a numeric value given to different **characters and symbols**, for computers to store and manipulate.

-the ASCII value of the letter **'A' is 65.**

-To **get the ASCII code** of a character, use the `ord()` function. To **get** the character encoded by an **ASCII code** number, **use the `chr()` function**. To know if all the characters present in a string are alphanumeric i.e. they are alphabets and numeric, use

the `isalnum()` function.

ASCII Table

Dec	Hex	Oct	Char	Dec	Hex	Oct	Char	Dec	Hex	Oct	Char	Dec	Hex	Oct	Char
0	0	0		32	20	40	[space]	64	40	100	@	96	60	140	`
1	1	1		33	21	41	!	65	41	101	A	97	61	141	a
2	2	2		34	22	42	"	66	42	102	B	98	62	142	b
3	3	3		35	23	43	#	67	43	103	C	99	63	143	c
4	4	4		36	24	44	\$	68	44	104	D	100	64	144	d
5	5	5		37	25	45	%	69	45	105	E	101	65	145	e
6	6	6		38	26	46	&	70	46	106	F	102	66	146	f
7	7	7		39	27	47	'	71	47	107	G	103	67	147	g
8	8	10		40	28	50	(	72	48	110	H	104	68	150	h
9	9	11		41	29	51	)	73	49	111	I	105	69	151	i
10	A	12		42	2A	52	*	74	4A	112	J	106	6A	152	j
11	B	13		43	2B	53	+	75	4B	113	K	107	6B	153	k
12	C	14		44	2C	54	,	76	4C	114	L	108	6C	154	l
13	D	15		45	2D	55	-	77	4D	115	M	109	6D	155	m
14	E	16		46	2E	56	.	78	4E	116	N	110	6E	156	n
15	F	17		47	2F	57	/	79	4F	117	O	111	6F	157	o
16	10	20		48	30	60	0	80	50	120	P	112	70	160	p
17	11	21		49	31	61	1	81	51	121	Q	113	71	161	q
18	12	22		50	32	62	2	82	52	122	R	114	72	162	r
19	13	23		51	33	63	3	83	53	123	S	115	73	163	s
20	14	24		52	34	64	4	84	54	124	T	116	74	164	t
21	15	25		53	35	65	5	85	55	125	U	117	75	165	u
22	16	26		54	36	66	6	86	56	126	V	118	76	166	v
23	17	27		55	37	67	7	87	57	127	W	119	77	167	w
24	18	30		56	38	70	8	88	58	130	X	120	78	170	x
25	19	31		57	39	71	9	89	59	131	Y	121	79	171	y
26	1A	32		58	3A	72	:	90	5A	132	Z	122	7A	172	z
27	1B	33		59	3B	73	;	91	5B	133	[	123	7B	173	{
28	1C	34		60	3C	74	<	92	5C	134	\	124	7C	174	|
29	1D	35		61	3D	75	=	93	5D	135	]	125	7D	175	}
30	1E	36		62	3E	76	>	94	5E	136	^	126	7E	176	~
31	1F	37		63	3F	77	?	95	5F	137	_	127	7F	177	

© w3resource.com

["Click Here"](#) To know More About It..

⇒ **What is Comments In Python??**

-Comments can be used to **explain** Python code.

-Comments can be used to make the code **more readable**.

-Comments can be used to prevent execution when testing code.

Example

```
#This is a comment
print("Hello, World!")
```

-Multi Line Comments

-Python does not really have a syntax for multi line comments.

-To add a multiline comment **you could insert a # for each line:**

Example;

```
#This is a comment  
#written in  
#more than just one line  
print("Hello, World!")
```

-Multiline string Comments

-Since Python will ignore string literals that are not assigned to a variable, **you can add a multiline string (triple quotes) in your code, and place your comment inside it:**

Example

```
"""  
This is a comment  
written in  
more than just one line  
"""  
print("Hello, World!")
```

"[Click Here](#)" To know More About It..
For Video Tutorial "[click Here](#)"

⇒ Range In Python

-The range() function returns a sequence of numbers, starting from 0 by default, and increments by 1 (by default), and stops before a specified number.

Parameter Values

Parameter	Description
start	Optional. An integer number specifying at which position to start. Default is 0
stop	Required. An integer number specifying at which position to stop (not included).
step	Optional. An integer number specifying the incrementation. Default is 1

Example

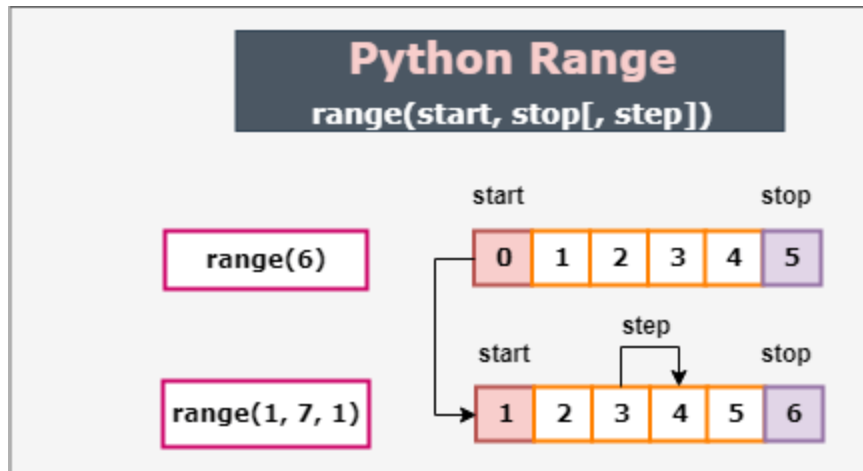
Create a sequence of numbers from 3 to 5, and print each item in the sequence:

```
x = range(3, 6)
for n in x:
    print(n)
```

Example

Create a sequence of numbers from 3 to 19, but increment by 2 instead of 1:

```
x = range(3, 20, 2)
for n in x:
    print(n)
```



 **Python range() Function**

`range(start, stop[, step])`

Returns or generates an immutable sequences of number, starting from the lower bound to the upper bound.

["Click Here"](#) To know More About It..
For Video Tutorial "[click Here](#)"

⇒ What Is IDX in Python??

-**"idx"** is usually short for index.

-**Python** loops allows items in a nested list to be accessed directly like so: `>>> lst = [[1, 2], [3, 4], [5, 6]]` `>>> >>> for a,b in lst: print a,b` 1 2 3 4 5 6.

-IDX is Also Known As **"Enumerate"**

```
x = 2
for i in range(3):
    print(x, end = ' ')
    x += i
```

- a. 0 1 2
- b. 2 3 5
- c. 2 2 3
- d. 1 2 4
- e. none of the above

Question 2

```
noise = 'hullaballoo'
idx = 0
while idx < len(noise):
    let = noise[idx]
    print(let, end='')
    letCount = noise.count(let)
    if idx > 2:
        idx += letCount
    else:
        idx += 1
```

- a. an infinite sequence of h's
- b. hula
- c. hulll
- d. hlaal
- e. none of the above

“[Click Here](#)” To know More About It..

For Video Tutorial "[click Here](#)"

⇒ What Is Prime Number??

-a number that **is divisible only by itself and 1** (e.g. 2, 3, 5, 7, 11).

prime numbers									
prime numbers have exactly two factors									
blue - prime numbers					gold - factors				
2	=	1	x	2	2	÷	1	=	2
3	=	1	x	3	3	÷	1	=	3
5	=	1	x	5	5	÷	1	=	5
7	=	1	x	7	7	÷	1	=	7
11	=	1	x	11	11	÷	1	=	11
13	=	1	x	13	13	÷	1	=	13
17	=	1	x	17	17	÷	1	=	17
19	=	1	x	19	19	÷	1	=	19
2, 3, 5, 7, 11, 13, 17 and 19 are prime numbers. They only have two factors, themselves and 1.									
prime numbers to 100									
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100
© Jeremy E.ether 2014									

⇒ Questions For Self Practice/ CC

-Q1. <https://www.hackerrank.com/challenges/python-loops/problem>

-Q2. Print the below pattern given by user

```
*  
* *  
* * *
```